

# PSII and HPPD Herbicide POST Tank Mixes

## Brooklyn, WI 2024

### Trial Information

Trial Sponsor: Wisconsin Cropping Systems Weed Science,  
Wisconsin Corn Growers Association

Objective: Evaluate the efficacy of atrazine alternative PSII-  
and HPPD-inhibitor herbicide tank mixes for  
control of waterhemp

Crop: Corn

Hybrid: 202-24STX RIB

Weed species (pressure): waterhemp (high-very high)

Herbicide Application(s): PRE – 5/24  
POST – 6/24 (V6 corn)

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For the full report see trial #24-BRO-CN12 in the [2024 Wisconsin Weed Science Research Report](#)  
Also, check out this [article](#) by Daniel Zhu discussing his project in more detail!



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| Trt # Herbicide (rate acre <sup>-1</sup> )  | Corn Injury <sup>c</sup> (%) |           |           | Waterhemp (%) |           |                  | Yield <sup>b</sup><br>bu acre <sup>-1</sup> |
|---|------------------------------|-----------|-----------|---------------|-----------|------------------|---|
|   | 7<br>DAT                     | 14<br>DAT | 28<br>DAT | 14<br>DAT     | 28<br>DAT | EOS <sup>e</sup> |   |
|   | 0                            | 0         | 0         | 0             | 0         | 0                | 154 de                                      |
| 1 Check (PRE Only)  | 0                            | 0         | 0         | 0             | 0         | 0                | 154 de                                      |
| 2 Roundup PowerMAX 3 (30 oz) + Liberty (32 oz) + AMS (2.5 %) <i>fb</i><br>hand weeding (as necessary) | 0                            | 0         | 0         | 100           | 100       | 100              | 196 a                                       |
| <b>Two-Pass – PRE<sup>d</sup> (5/24) <i>fb</i> POST (6/24)</b>  |                              |           |           |               |           |                  |   |
| 3 Moxy 2E (1 pt) + COC (1%) + AMS (2.5%)  | 1.5                          | 1.0       | 1.0       | 11            | 7         | 20               | 156 de                                      |
| 4 Basagran 5L (1.2 pt) + COC (1%) + AMS (2.5%)  | 1.5                          | 1.0       | 0.2       | 6             | 8         | 17               | 146 e                                       |
| 5 Metricor DF (4 oz) + COC (1%) + AMS (2.5%)  | 27.5                         | 20.0      | 4.3       | 31            | 22        | 49               | 163 cde                                     |
| 6 Callisto (3 oz) + COC (1%) + AMS (2.5%)   | 1.2                          | 1.0       | 1.0       | 66            | 62        | 80               | 178 abcd                                    |
| 7 Armezon (0.75 oz) + COC (1%) + AMS (2.5%)   | 1.2                          | 1.0       | 1.0       | 39            | 28        | 59               | 180 abcd                                    |
| 8 Callisto (3 oz) + Moxy 2E (1 pt) + COC (1%) + AMS (2.5%)  | 3.6                          | 2.0       | 1.0       | 93            | 88        | 96               | 197 a                                       |
| 9 Callisto (3 oz) + Basagran 5L (1.2 pt) + COC (1%) + AMS (2.5%)                                      | 2.4                          | 1.0       | 1.0       | 74            | 39        | 81               | 197 a                                       |
| 10 Callisto (3 oz) + Metricor DF (4 oz) + COC (1%) + AMS (2.5%)                                       | 32.5                         | 23.8      | 4.3       | 95            | 92        | 97               | 196 a                                       |
| 11 Armezon (0.75 oz) + Moxy 2E (1 pt) + COC (1%) + AMS (2.5%)   | 2.7                          | 1.8       | 0.9       | 78            | 65        | 82               | 189 ab                                      |
| 12 Armezon (0.75 oz)+Basagran 5L (1.2 pt) +COC (1%)+AMS (2.5%)  | 1.5                          | 1.0       | 1.0       | 45            | 38        | 55               | 166 bcde                                    |
| 13 Armezon (0.75 oz) +Metricor DF (4 oz) +COC (1%) +AMS (2.5%)  | 32.5                         | 25.0      | 3.5       | 75            | 68        | 81               | 186 abc                                     |
| LSD ( $\alpha=0.05$ )   | 1.4                          | 1.2       | 0.5       | 8             | 10        | 5                | 12  |
| p value   | <0.01                        | <0.01     | 0.03      | <0.01         | <0.01     | <0.01            | <0.01                                       |

<sup>a</sup>Visual control from 70-100% is illustrated on a color scale with green representing greater weed control values.

<sup>b</sup>Yield values with the same letter are not significantly different.

<sup>c</sup>Corn injury = leaf necrosis (burn)

<sup>d</sup>Verdict (5 fl oz/a) was applied PRE over the entire trial area including the checks (treatments #1 and #2)

<sup>e</sup>EOS = end-of-season weed control rating

# PSII and HPPD Herbicide POST Tank Mixes

## Brooklyn, WI 2024

Plot pictures taken on 7/1

38 days after the PRE application  
7 days after the POST application

**38 days after PRE (7/1)  
PRE: 5 oz Verdict (Check)**



7 days after POST (7/1)

PRE: 5 oz Verdict *fb*

POST: 30 oz Roundup PM3 + 32 oz Liberty + AMS



**7 days after POST (7/1)**

**PRE: 5 oz Verdict fb**

**POST: 1 pt Moxy 2E + COC + AMS**



**7 days after POST (7/1)**

**PRE: 5 oz Verdict fb**

**POST: 1.2 pt Basagran 5L + COC + AMS**



**7 days after POST (7/1)**

**PRE: 5 oz Verdict fb**

**POST: 4 oz Metricor DF + COC + AMS**



**7 days after POST (7/1)**

**PRE: 5 oz Verdict fb**

**POST: 3 oz Callisto + COC + AMS**



**7 days after POST (7/1)**

**PRE: 5 oz Verdict fb**

**POST: 0.75 oz Armezon + COC + AMS**



**7 days after POST (7/1)**

**PRE: 5 oz Verdict *fb***

**POST: 3 oz Callisto + 1 pt Moxy 2E + COC + AMS**



**7 days after POST (7/1)**

**PRE: 5 oz Verdict *fb***

**POST: 3 oz Callisto + 1.2 pt Basagran 5L + COC + AMS**



**7 days after POST (7/1)**

**PRE: 5 oz Verdict fb**

**POST: 3 oz Callisto + 4 oz Metricor DF + COC + AMS**



7 days after POST (7/1)

PRE: 5 oz Verdict *fb*

POST: 0.75 oz Armezon + 1 pt Moxy 2E + COC + AMS



7 days after POST (7/1)

PRE: 5 oz Verdict *fb*

POST: 0.75 oz Armezon + 1.2 pt Basagran 5L + COC + AMS



**7 days after POST (7/1)**

**PRE: 5 oz Verdict fb**

**POST: 0.75 oz Armezon + 4 oz Metricor DF + COC + AMS**



# PSII and HPPD Herbicide POST Tank Mixes

## Brooklyn, WI 2024

Plot pictures taken on 7/8

45 days after the PRE application  
14 days after the POST application

The number in the upper right-hand corner is the average % waterhemp control of 4 replications

**45 days after PRE (7/8)  
PRE: 5 oz Verdict (Check)**

**0%**



14 days after POST (7/8)

PRE: 5 oz Verdict *fb*

POST: 30 oz Roundup PM3 + 32 oz Liberty + AMS *fb* hand weeding

100%



**14 days after POST (7/8)**

**PRE: 5 oz Verdict *fb***

**POST: 1 pt Moxy 2E + COC + AMS**

**11%**



14 days after POST (7/8)

PRE: 5 oz Verdict *fb*

POST: 1.2 pt Basagran 5L + COC + AMS

6%



**14 days after POST (7/8)**

**PRE: 5 oz Verdict fb**

**POST: 4 oz Metricor DF + COC + AMS**

**31%**



**14 days after POST (7/8)**  
**PRE: 5 oz Verdict *fb***  
**POST: 3 oz Callisto + COC + AMS**

**66%**



**14 days after POST (7/8)**

**PRE: 5 oz Verdict fb**

**POST: 0.75 oz Armezon + COC + AMS**

**39%**



14 days after POST (7/8)

PRE: 5 oz Verdict *fb*

POST: 3 oz Callisto + 1 pt Moxy 2E + COC + AMS

93%



14 days after POST (7/8)

PRE: 5 oz Verdict *fb*

POST: 3 oz Callisto + 1.2 pt Basagran 5L + COC + AMS

74%



**14 days after POST (7/8)**

**PRE: 5 oz Verdict fb**

**POST: 3 oz Callisto + 4 oz Metricor DF + COC + AMS**

**95%**



**14 days after POST (7/8)**

**PRE: 5 oz Verdict fb**

**POST: 0.75 oz Armezon + 1 pt Moxy 2E + COC + AMS**

**78%**



14 days after POST (7/8)

PRE: 5 oz Verdict *fb*

POST: 0.75 oz Armezon + 1.2 pt Basagran 5L + COC + AMS

45%



**14 days after POST (7/8)**

**PRE: 5 oz Verdict fb**

**POST: 0.75 oz Armezon + 4 oz Metricor DF + COC + AMS**

**75%**



# PSII and HPPD Herbicide POST Tank Mixes

## Brooklyn, WI 2024

Plot pictures taken on 7/2

59 days after the PRE application  
28 days after the POST application

The number in the upper right-hand corner is the average % waterhemp control of 4 replications

**59 days after PRE (7/22)  
PRE: 5 oz Verdict (Check)**

**0%**



28 days after POST (7/22)

PRE: 5 oz Verdict *fb*

POST: 30 oz Roundup PM3 + 32 oz Liberty + AMS *fb* hand weeding

100%



28 days after POST (7/22)

PRE: 5 oz Verdict *fb*

POST: 1 pt Moxy 2E + COC + AMS

7%



28 days after POST (7/22)

PRE: 5 oz Verdict *fb*

POST: 1.2 pt Basagran 5L + COC + AMS

8%



28 days after POST (7/22)

PRE: 5 oz Verdict fb

POST: 4 oz Metricor DF + COC + AMS

22%



**28 days after POST (7/22)**  
**PRE: 5 oz Verdict fb**  
**POST: 3 oz Callisto + COC + AMS**

**62%**



**28 days after POST (7/22)**

**PRE: 5 oz Verdict fb**

**POST: 0.75 oz Armezon + COC + AMS**

**28%**



**28 days after POST (7/22)**

**PRE: 5 oz Verdict fb**

**POST: 3 oz Callisto + 1 pt Moxy 2E + COC + AMS**

**88%**



28 days after POST (7/22)

PRE: 5 oz Verdict *fb*

POST: 3 oz Callisto + 1.2 pt Basagran 5L + COC + AMS

39%



**28 days after POST (7/22)**

**PRE: 5 oz Verdict fb**

**POST: 3 oz Callisto + 4 oz Metricor DF + COC + AMS**

**92%**



28 days after POST (7/22)

PRE: 5 oz Verdict *fb*

POST: 0.75 oz Armezon + 1 pt Moxy 2E + COC + AMS

65%



28 days after POST (7/22)

PRE: 5 oz Verdict *fb*

POST: 0.75 oz Armezon + 1.2 pt Basagran 5L + COC + AMS

38%



28 days after POST (7/22)

PRE: 5 oz Verdict *fb*

POST: 0.75 oz Armezon + 4 oz Metricor DF + COC + AMS

68%

